

**POSITION DEPENDENT RECOGNITION OF
GNN NUCLEOTIDE TRIPLETS BY ZINC FINGERS**

ABSTRACT OF THE DISCLOSURE

5 The specificity of binding of a zinc finger to a triplet or quadruplet nucleotide
target subsite depends upon the location of the zinc finger in a multifinger protein and,
hence, upon the location of its target subsite within a larger target sequence. The present
disclosure provides zinc finger amino acid sequences for recognition of triplet target
subsites having the nucleotide G in the 5'-most position of the subsite, that have been
10 optimized with respect to the location of the subsite within the target site. Accordingly,
the disclosure provides finger position-specific amino acid sequences for the recognition
of GNN target subsites. This allows the construction of multi-finger zinc finger proteins
with improved affinity and specificity for their target sequences, as well as enhanced
biological activity.